ITY for lighting and power is rapidly advancing in the favor of the American farmer. Whether he be one those adventurous individuals who stake their the all on prospect developing a paying farm in the arid districts

the west and southwest, or swamp lands the the south, or whether he be of the class that is turning its attention to the great rewards of truck

and dairy farming in the east, the modern farmer has caught the scientific spirit of the time and is getting practical results from his realization of the fact that methods must accommodate themselves to changing conditions.

At the annual convention of the American Institute of Electrical Engineers held recently in Boston, the electrical farm was considered in a paper by Putnam A. Bates. He discussed in some detail the work now being done by farmers who are developing the arid districts of the west, showing that irrigation and electricity are the two factors that promise most for the future where natural conditions are for the most part against the farmer. Irrigation came first and then the advantages of electric power pumping were realized. The so-called electrical farm has been in existence for a dozen years or more, but it is only recently that there has been an organzed effort to disseminate knowledge on the practical use of electricity in agriculture. Referring to the southwest and to the elec-

tric farm as he found it there, Mr. Bates says: "In some sections of that wonderfully fertile country, well protected by the high mountain ranges, practically every farm is an electric Thta is to say, the buildings are lighted by electricity and many of the laborious operations are accomplished by the use of electric power. These really were our first electric farms. the period of their establishment corresponding with the development of the water powers of the

nearby mountains.

ated by electricity.

cities and towns

poses.

gation system.

"On the majority of these farms irrigation is

practiced and quite naturally electricity was first

made use of for pumping purposes. Then under

the influence of progressive local central station

operators, it was almost universally adopted for

electric flatiron in use in the farm home on the

Facific coast eleven years ago. The people were

content to enjoy the advantages which these

improvements made possible to them, but did

not seem to regard their conditions as unusual.

Their farms were in fact electric farms and their

industries, dependent upon the produce of the

land, were as they are now, practically all oper-

plished shows that construction is under way or

has been completed on twenty-nine projects, in-

volving an expenditure of \$65,470,000. In the

eight years of actual work there have been dug

7,000 miles of canals and more than nineteen

miles of tunnels, mostly excavated through

mountains. The total excavation of rock and

earth amounts to 77,200,000 cubic yards. There

have been built 570 miles of roads, 1,700 hiles

of telephones, and there are now in operation

275 miles of transmission lines, over which sur-

plus power and light are furnished to several

these developments give the effect of suburban

rather than rural conditions. The cheap power

developed from the great dams or from numer-

ous drops in the main canals is now utilized for

the operation of trolley lines, which reach out

into the rural districts, bringing the farmer in

closer touch with the city. It runs numerous

industrial plants for storing, handling and manu-

facturing the raw products of the farm. The

same power is used for lighting and heating in

the towns, and for cooking in the homes. On

several of the projects the farmers are applying

for electrical power, and in many farm houses

electric power is utilized for many domestic pur-

ed in the development of power on the Salt

River project, of which the farmers have volun-

tarily raised \$800,000. The sale of the power up

to the beginning of the present year amounted

to \$144,000, with the plant only partially con-

structed. This revenue will contribute material-

ly toward lessening the cost of operating the irri-

electricity is used for lighting, clipping cows,

operating a bottling machine, spinning on tin

foil caps or seals on bottles, cutting ensilage,

running a sawmill, pumping from a deep well,

turning out daily from 3,500 to 4,000 quarts of

milk, where an exceptionally high standard of

"The fact that this is a commercial plant

grinding feed and elevating it to storage bins.

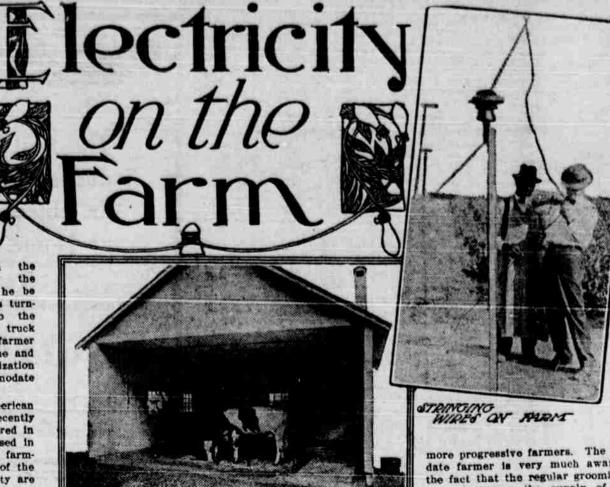
"On a large milk farm at Plainsboro, N. J.,

"More than a million dollars has been invest-

"The small farms and villages grouped about

"A brief summary of the work accom-

"I can recall seeing electric lights and the



MODERN DAIRY IN WHICH

POWER MOUSE

CUTTING FODDER BY

POWER

quality is rigidly maintained, is evidence that

there must be advantages in using electricity in

1,200, and at present about 70 per cent, is under

cultivation. Electricity is generated by steam

power and distributed at 220 volts. The gener-

ating equipment at present consists of one 25-

kilowatt direct connected unit, steam boiler, etc.

sure, but it insures cleanliness of lighting equip-

ment and safety from fire risk in the barns,

bunk houses and outbuildings. It also makes

possible a convenient source of power in any

part of the farms or outbuildings, which of nec-

essity are widely distributed, and cost of gen-

erating the current, including interest and de-

preciation charges, is probably not over four

more coming into prominence and the necessity

for perfect cleanliness, immediate cooling and

keeping the milk at a low temperature compels

such dairy farmers to adopt devices that will

be most helpful in obtaining these results. There

is a milk dairy in Morristown, N. J., where the

walls, cellings and floors of all rooms in which

the milk is handled are washed down daily, both

morning and evening-the electric lighting fix-

lowed where land needs upbuilding in fertility,

and in either the silo is a necessity, cutting up

succulent forage crops and storing them in the

silo for later use being the accepted method of

preparing the feed. To do this the farmer must

have power, but a ten horsepower electric mo-

tor with its capacity for momentary overload

will do the work that would stall a gasoline en-

tage of the electric motor for this operation and

when once adopted he soon wants to use the

current for grinding feed, baling hay and other

fers other opportunities, as it is the most con-

venient form of energy for operating an artifi-

cial refrigeration plant, the cream separator,

hand on small dairy farms, are more frequently

driven mechanically where considerable cream

is handled. Except in the very large sizes, they

requre not more than a one-fifth horsepower mo-

tor and they are in operation only for a com-

paratively short time. The operating cost, there-

milkers, especially on dairy farms where there

is a great deal of milking to be done and hand

milkers are not available in sufficient numbers.

Likewise electricity is now being used exten-

sively for cooling and aerating and the ice-

making electrical device is not unknown to our

There are in use many designs of electric

"The farmer can easily recognize the advan-

"On the dairy farm, however, electricity of-

"Cream separators, while often turned by

gine rated at twelve to fifteen horsepower.

"Dairying and stock raising are usually fol-

tures being entirely water tight.

"Scientific milk production is more and

"This is not a large generating plant to be

"The total acreage of the farm is nearly

such an installation.

cents a kilowatt hour.

more progressive farmers. The up-todate farmer is very much aware of the fact that the regular grooming of cows increases the supply of milk and counts strongly for cleanliness. He now has an electrical device for doing this.

One of the most interesting electrical devices on the modern farm is the telephone. In the old days the men and women were called from the fields for dinner by the blowing of a horn or by sending the small trudging across the field with the good news. The modern farmer's men take to the fields with them a telephone which can be rigged up near where they are working and receive messages from the house by that means.

With the installation of these electrical devices much of the romantic side of life on the farm passes away. Even a modern poet would have a hard time getting anything lyrical out of an electrical milker, and the beauty of a load of hay somehow fades when a motor truck goes chugging across the fields with it. But the American farmer ceased to be romantic when the graphophone took the place of the wheezy old organ and when his wife opened up that front parlor that always used to

be such a sombre place. He is out to make money now and electrical machinery opens up a way for him to do it. When he feels like it nowadays he gets into his automobile and goes elsewhere to find what will appeal to his idea of the

To Burn New Home

Former Fire Chief of New York Plans Unique Demonstration.

Former Fire Chief Edward F. Croker of New York city is planning a unique yet highly impressive object lesson on the prevention of fires in methods of the plantation have been dwellings. He recently purchased ground for a abandoned and the old rubber colnew house in the suburbs, and now he announces lecting methods resumed. The rethat when his \$30,000 home is completed he will turns show that the 12,000 demonstrate its fire-proof qualities by attempting rubber collected in 12 years proto burn it. His grim experience while fire chief duced from \$5,000,000 to \$7,500,000 of the metropolis in seeing so many lives sacri- and entailed the death of 30,000 Inficed each year to the demon of flames fed on dians, whose bones are scattered flimsy materials, both in buildings and their fur- through the forest and have made cernishings, is back of his commendable plan to et- tain places resemble battlefields. fectually prove that there is a safer and saner

"The house will be completely furnished at the time," explains Mr. Croker, "with rugs, draperies and furniture of artistic patterns. But everything in the place will be proof against fire. We shall fill each room with wood shavings and cotton waste on which kerosene has been poured. We have such confidence in the material employed in the house itself and in the fire-proofing qualities of the furniture that we are sure they will come out of the ordeal unscathed.

"The building itself will be constructed of fireproof block, which can be worked up into most artistic effects. During its manufacture it was subjected to excessive heat. The exterior will be in the Italian villa style—the first story in white, the second in red, with a red tile roof.

"Not a particle of wood will be used anywhere, inside or out. Doors, window frames, sashes and trim will be of fireproof material. The floors will be of a substance that looks like wood, but which is chemically impregnated with resistant matarials. The furniture will be of fireproof substances, on which fire has absolutely no effect. In parts the Edison concrete furniture will be

"The sanitation will be perfect. The corners of every room will be rounded, there will be a vacuum cleaning system, and so the dwelling will be insect and rat proof. Closets will be fitted like innovation trunks, with all the fixtures in stamped metal, and lined with tile. The different appliances in them will work on ball bearing rollers. Kitchen sinks and drain boards will be of aluminum.

"There is now no fireproof house in existence, and more lives are lost through the burning of private houses than through fires in factories or other buildings."

Agents Wanted.

Mr. Gowit-I am going to join the Society for the Prevention of Crime.

Reggy Riverside-Great Caesar! What for? Mr. Gowit-So that I can paint the town and have my expenses paid.—Puck.

Had a Tender Heart.

Mr. Calley-I thought both your girls played the piano? Pa Hyley-Mamie does, but Carrie never could stand to make others unhappy.

On the Farm. "Do you have any trouble in keeping your boys on the farm?"

"No." replied Farmer Corntossel. "They're willin' to stay. The only difficulty is that they all want to act like summer boarders."

PARISIANS DINE WITH THE COWS

N Paris it is the fad just now to dine with the cows, the practice being supposedly an aid to health. Our photograph shows Madge Lessing and Marguerite Sylva, American singers, in the stable of the Restaurant

were issued, but there were only four

arrests. All the others had naturally

used the six months' delay to vanish.

The United States at this period

was actively urging Peru to realize

the reforms. Strong representations

made in February, 1912, met with

delay by appointing a new commis-

sion to reorganize the administration

members refusing to serve. For this

exhausted and they decided to appeal

to the public sentiment of the world

through the publication of Sir Roger

SUES FOR PARENT'S RICHES

ternational Romance at

Baltimore.

Baltimore, Md.-Alice Wilkins von

Buckwaldt, a Baltimore girl, wife of

Casement's reports.

30,000 WERE SLAIN

Old Methods of Rubber Gathering Cost Many Lives.

Peru Falled to Keep Promises Made -Second Paper by Sir Roger Casement Shows Appeals for Reform Have Been Ignored.

general professions of good intentions London. - A sensational second by the president of Peru, but the government of that country sought new chapter in the expose by Sir Roger Casement, the British consul-general at Rio Janeiro, who of the Putumayo district, with orders was sent by the British government to the Amazon to investigate to report on June 28, 1912. The commission, however, was stillborn, the stories of outrages on natives in the rubber disrict, came out recently in reason the patience of the American the shape of a supplementary report and British governments finally was to the foreign office, which shows that there has been practically a total failure on the part of the Peruvian government to respond to the demand for a reform of the rubber atrocities in the Putumayo district, says a London

A mass of official correspondence, which also was filed, completes the Daughter's Novel Action Revives Instory and indicates generally the cordial co-operation of the state department at Washington with the British foreign office to secure a remedy for the abuses. Captain von Buckwaldt of the Ger-

The second Casement report indibut seemed to have no intention of get possession of the estate left her

None of the reforms promised by took her to Germany soon after her Peru, according to Sir Roger's report, father's death. When twenty-one tectors, which they are now selling for has been carried out. The civilized Alice attempted to get her property, a cent apiece.

The responsibility for this, according to Sir Roger, is strictly British, as the whole output of the region is placed on the English market and conveyed from Iquitos in British bottoms. Some employers are British subjects and the commercial future of the district is dependent on British capital.

In July Sir Edward Grey, after soliciting the co-operation of the United States, pressed Peru harder not only to punish the criminals, but to enact legislation making slavery a criminal offense. The president of Peru was reminded of his treaty obligations to Great Britain and was also urged to establish a religious mission in the Putumayo district, with headquarters in Iquitos, with government backing and a substantial subsidy.

Just about this time the United States stepped in and brought pressure to bear on Peru. On June 25, 1911, Dr. Paredes, the head of the Peruvian investigation commission,

CALLS SON BY TELEPATHY then the largest sea-going vessel in duration. The expense will be de-

Mother's Illness Draws Him From Mountain Camp to Pasadena Hospital.

camp to his sick mother's bedside in a Pasadena bospital, according to a statement he made. He said mysterious manifestations turned his half-way out of the ways and had thoughts to home and caused him to worry about his father and mother ernment decided to finish her. She and experience the sensation of groping in the dark for an object which he instinctively knew was there.

He told a companion and when the feeling returned, shouted: "I have it! Mother is sick. I am going home." When he reached his home in Pasadena his father told him his mother was in the hospital. Comparison of dates showed the first feeling of uneasiness came over him the day his mother became ill.

Arrested for Shooting Spirits. ed a man giving the name of C. E. and Spanish, to become full-blown mid- an ordinary stomach malady and the Drayton when the latter was caught in the act of shooting at evil spirits. As praying in the streets, Drayton did in Philadelphia in 1841. I lay the vitality of the patient was not

spirit was after him.

but was refused, the executor claim ing the will made him trustee for # onger period. The court of appeals ordered the property turned over te the helress, but before this was done confirmed all the atrocity stories. Two new complication arose. hundred and fifteen arrest warrants

Miss Wilkins fell in love with handsome captain in the German army, but her mother refused to give her consent to the match, fearing that the wooer was after her fortune. In vain did the girl plead that she knew better, but the mother was obdurate. Finally she said that she would give her consent if the daughter would make a deed of trust of the property in Baltimore so that the captain would not be able to get hold of it. The daughter made the deed

of trust and her marriage followed. The captain proved a good husband and he won his mother-in-law, who subsequently married a general, and both mother and daughter moved in the army set at the German capital. The trustee, when Mrs. von Buckwaldt sought to have the deed revoked, refused and her mother is now aiding her daughter's suit to have it set aside.

BAR HATPINS FROM CARS

Authorities of Hamburg Issue Order for the Ejection of Offend-Ing Women.

Hamburg.-The police authorities cates that Peru not only did nothing, man army, has begun suit here to have issued an order whereby any woman who enters a street car with taking any action. All the measures by her father, who died many years unprotected hatpins is liable to ejectaken by that government were dila- ago, amounting to \$250,000. Alice was tion by the conductor. For the benetory and feeble and wholly ineffective. the youngest child and her mother fit of strangers the company has provided its conductors with hatpin pro-

SURVIVOR OF SHIP

on Constitution.

Emmanuel J. Rauch, Eighty-Six Years Old, Who Was on Vessel 70 Years Ago, Said to Be the Only One

of the Crew Left.

New York.-Emmanuel J. Rauch be leves that he is the oldest survivor of those who served on the United States ship Constitution. He was born in Chester County, Pennsylvania, on November 6, 1825, and is far from showing his 86 years.

His discharge from the Constitution is dated February 1843. He looks like a man of about 65 and well preserved at that.

It was on July 18, the hundredth an niversary of the escape of Old Ironsides from a British fleet, that a reon the anniversary of that event, he States line of battle-ship Pennsylvania, the world.

heaviest were eighteen-pounders. "The Pennsylvania had been start- coast. ed about 1811, but for years had lain nearly rotted to pieces when the gov was never really equipped, but took the spars of the Ohlo and sailed to Norfolk, where she became a school and nursing ship. She was not any good sea-going vessel."

"How did you come to take to the sea?" Mr. Rauch was asked. "In 1839 congress, anxious to get a

better element into the navy-Uncle Sam's sailors were a pretty hard lot liver. in those days-passed a oill allowing lads between the ages of thirteen and the knowledge of New York surgeons. fifteen to be apprentices for three years and then, after having passed taken to Seney hospital. It was then St. Louis.—Sergeant Barlow arrest- an examination, which included French thought that she was suffering from shipmen.

steamer Mississippi, the first real reactionary period.

New Yorker Remembers Service man-of-war the United States pos-

sessed, was launched in December, 1842, when I was assigned to her. "I left her to join the Constitution, which had been overhauled at Norfolk but she was quite unfit to go to sea. Meanwhile one of my friends had applied to the secretary of the navy to have me made a midshipman and discovered that when congress passed the bill of 1839 it had failed to revoke a previous bill on the same subject, so all my dreams of becoming an officer were shattered; in fact congress had played a rather mean trick on ambi-

CUPID GIVES WEDDING TRIP

tious lads who had apprenticed them-

selves in Uncle Sam's navy."

How Jereson, O., Pastor and His Wife Got Money for a Journey to California.

Jefferson, O .- When Rev. Joseph A. porter called on Mr. Rauch. The date Goodrich, pastor of the First Congresuggested to Mr. Rauch that in 1836, gational church, and Mrs. Goodrich were married they took a wedding witnessed at the Philadelphia navy- trip. Soon they start on another. yard the launching of the United The prospective "wedding" trip will be to California and of considerable frayed by Cupid, Mr. Goodrich, accord-"The Pennisylvania was what was ing to orthodox ministerial custom, called a four-decker," said Mr. Rauch, having passed on to Mrs. Goodrich att "although she really had five decks. the fees handed him by happy bride-She was pierced for 140 guns, but real- grooms, and Mrs. Goodrich having Los Angeles.—Telepathic messages ly carried 160-they were cast from carefully hoarded them in anticipation called Oril Sutliff from a mountain guns in those days-of which the of the time when their growth might admit of a trip for two to the Pacific

PIN IN LIVER 20 YEARS: DIES Operation Apparently Successful, But

Brooklyn Girl's Strength Falls-First Case of Kind.

New York .- Miss Kathryn Roche, Brooklyn, died in the Prospect Heights hospital, and a surgical examination into the cause of her mysterious illness revealed the fact that for 20 years a small pin had been in her

No similar case has ever come to Twenty years ago Miss Roche was doctors sent her home. A recent op-"That induced me to ship, which I eration was apparently successful, but started firing and explained that a around on a receiving ship until the sufficient to carry her through the

DUCK HAS FEAST OF NUGGETS | duck had been feeding with gravel of many San Mateo creeks which wind from the bed of the San Carlos creek. through the foothills on their way to

Stream Found Inside Fowls Being Prepared for Table.

big as peas, lies in the beds of the brosky, a poultryman of San Carlos, streams of the San Mateo footbills. Mrs. John Tibbet of Redwood City suspected. After man has traveled over these found several pieces of gravel and a hills for years and their wooded slopes | nugget of pure gold as large as a pea | the duck, who now almost ranks with have become the estates of the in the crop. Dombrosky had recently the goose that laid the golden eggs,

world.

purposes.

churn and butter worker.

fore, is practically negligible."

While preparing a duck which she Pure, glittering gold, in nuggets as had purchased from Alexander Dom- many loads of gravel are extracted,

Gold That Lies in Bed of California the presence of the yellow metal and the creek passes through the country of the country homes on the penin-

San Francisco capitalist. During the |- San Francisco Chronicle. summer months the stream is dry and but the presence of gold was never Following the sensational find of cent hats.'

wealthy, a poor, simple duck detected covered his poultry yard where the the sluice will be applied to the sands fection."

The gravel was taken from where the bay, and the lawns and gardens had to die to give the secret to the estate of Colonel N. J. Brittan, the sula may be laid out as placer claims.

> Trickery. "My wife is trying to get all the other suffragettes to come out in 39-

"What's her idea?" "Then she'll appear in a \$50 con-

Father Advertises for Kin, Now Fiftytwo Years Old, Whom He Plans

to Give \$60,000.

to a German girl named Caroline, being somewhere in the farming sec- ed if they were superstitious.

Philadelphia."

Mr. Nyholm is an insurance broker Philadelphia, Pa.—The following ad- and at his home he told the story of vertisement in the newspapers tells an aged and grief-stricken old man

FORTUNE FOR ILLEGAL SON who a short time after died, but the | tion at that time. The father intendchild lived. If any one can give any ed to marry the mother of his offinformation about this kindly write to spring, but went to the Civil war, and C. J. Nyholm, 478 North Third street, when he was mustered out he found she had died during his absence.

Black Cat at Tunnel Opening.

Chicago.-Ahead of the first street a remarkable tale of an old wrong, who in his recitning years desires to car that passed through the new Norta with the attempt of the father to right give the child of whom he is the father La Salle street tunnel walked a black himself after fifty years of silence: \$60,000. He has not seen the child cat. Officials of the Chicago Rull-"In the spring of 1855, a few miles since 1888, when it is thought that ways company, who were the first pasfrom Lancaster, a boy child was born the young man went to Lancaster, sengers, laughed nervously when ask-